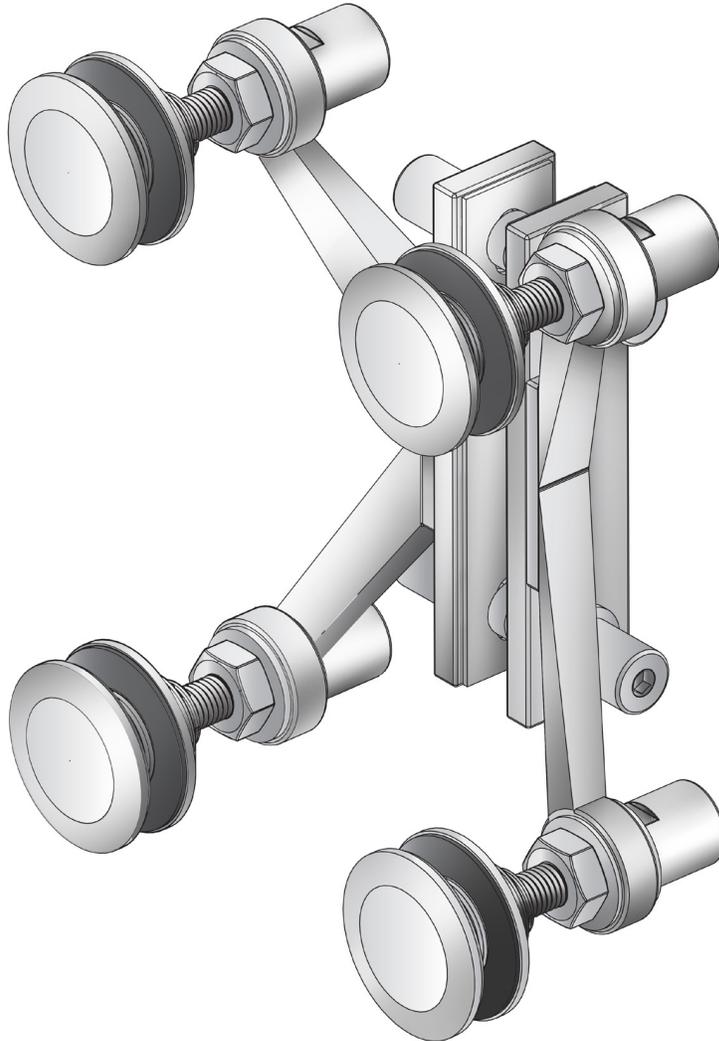


CRL SPIDER FITTINGS



HANDLING, STORAGE, AND PROTECTION OF ALUMINUM

The following precautions are recommended to protect the material against damage. Following these precautions will help ensure early acceptance of your products and workmanship.

A. HANDLE CAREFULLY.

All aluminum materials at job site must be stored in a safe place, well removed from possible damage by other trades. Cardboard wrapped or paper interleaved materials must be kept dry.

B. CHECK ARRIVING MATERIALS.

Check for quantity counts and keep records of where various materials are stored.

C. KEEP MATERIALS AWAY FROM WATER, MUD, AND SPRAY.

Prevent cement, plaster, or other materials from damaging the finish.

D. PROTECT THE MATERIALS AFTER ERECTION.

Protect erected frame with polyethylene or canvas splatter screen. Cement, plaster, terrazzo, other alkaline solutions, and acid based materials used to clean masonry are harmful to the finish. ***If any of these materials come in contact with the aluminum, immediately remove with water and mild soap.***

STRUCTURAL DISCLAIMER:

All customers who in any way utilized this product for the intended use and site conditions. All installers must be qualified and have a professional knowledge about compliance with local, state and federal regulations, safety factors, and the appropriate choice of fixing material and procedures.

NOTE: Any modifications, other than those specified in this document, could result in this product's failure to meet UL safety ratings and void the manufacturer's warranties.

The rapidly changing technology within the architectural aluminum products industry demands that C.R. Laurence/U.S. Aluminum reserve the right to revise, discontinue, or change any product line, specification, or electronic media without prior written notice.

NOTE: Dimensions in parentheses () are millimeters unless otherwise noted.

INTRODUCTION

CRL Heavy-Duty Spider Fittings are for 1/2" to 1-1/16" (12 to 27) tempered Glass Wall Canopy applications. We now stock fourteen designs of Heavy-Duty Spiders that can be incorporated into these systems. We have one, two, and four arm fittings that can be mounted to railing posts, structural walls or fins. All CRL Spider Fittings and Glass Attachments are made of 316 Alloy Stainless Steel to provide a virtually maintenance free design and a beautiful finish to complement most any decor.

CRL ARCHITECTURAL HARDWARE DIVISION
PHONE: (800) 421-6144, EXT. 7700
FAX: (800) 587-7501

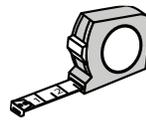
TOOLS REQUIRED



5mm, 6mm, 7mm
Allen Wrenches



RTV408C
Silicone



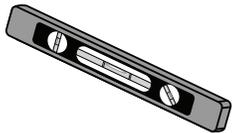
Tape Measure



Pencil



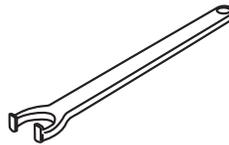
Drill



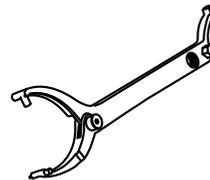
Level



Plumb Bob



SNW2
Wrench



WKSP1HD
Wrench



Blue Loctite
Threadlocker

- Drill Bits: 27/64", 12 mm, 14 mm
- Taps: 1/2"-13, 17/64"-18 / M14-2.0, M16-2.0
- Tape Measure
- Saw Horses
- Cordless Drill
- 1/2" Masking Tape
- Center Punch
- Stepladder
- Framing Square/Straight Edge

Point-supported, also known as spider systems, have been developed to connect large frameless glass surfaces. The Spiders can be attached to vertical columns, vertical "I"-beams, or vertical glass fins, giving the look of glass sheets floating in space with no horizontal or vertical metal.

The Spider Fittings themselves are beautifully finished in brushed or polished stainless steel that have been structurally tested to carry the panel weight and handle the wind load of the region. The spider itself is usually attached to a metal pole with a bolt or welding.

CATEGORIZED BY SIZE AND STRENGTH

Heavy-Duty Spider fittings are for 1/2" to 1-1/16" (12 to 27) tempered glass wall and overhead canopy applications. CRL now stocks fourteen designs of Heavy-Duty Spiders that can be incorporated into these systems. We have one, two, and four arm fittings that can be mounted to railing posts, structural walls or fins.

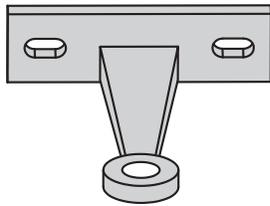
Regular Duty Spider fittings can be used for 3/8" to 1/2" (10 to 12) tempered glass walls and canopies. CRL now stocks fourteen designs of Regular Duty Spiders. We have one, two, and four arm fittings that can be mounted to railing posts, structural walls or fins.

Mini Spider fittings are for use in interior dividers, displays, and hand railing applications. CRL now stocks nine designs that can be incorporated into these systems. We have one, two, three, and four arm fittings that can be mounted to railing posts, structural walls or fins. We offer two types of Combination Glass Attachments that can be used for any of these fittings.

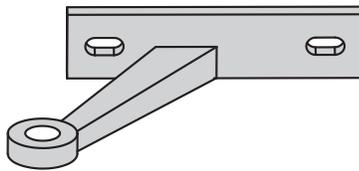


CRL HEAVY-DUTY SPIDERS

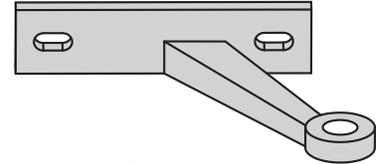
FIN / WALL MOUNT APPLICATION



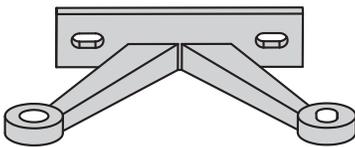
FMH1



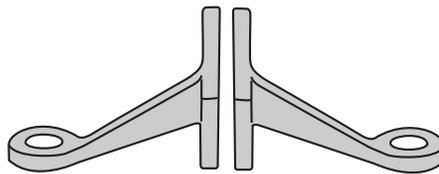
FMH1RH



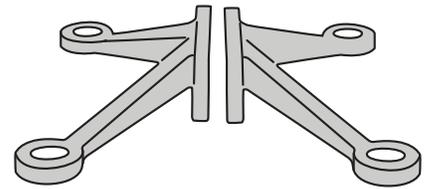
FMH1LH



FMH2V

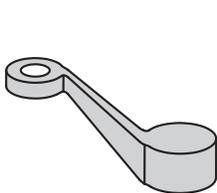


FMH2

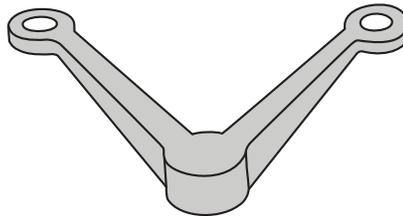


FMH4

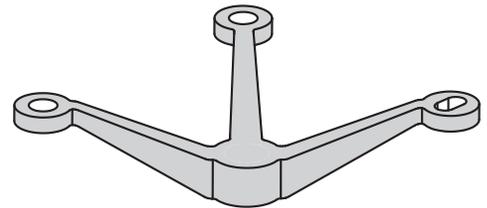
POST MOUNT APPLICATION



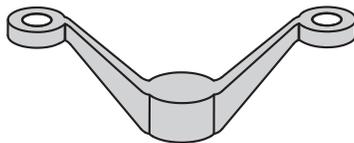
PMH1



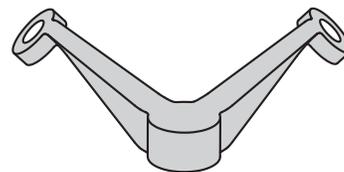
PMH2V



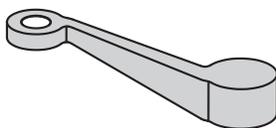
PMH3



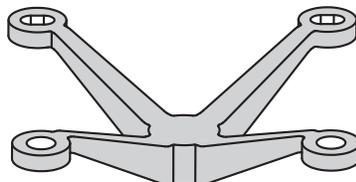
PMH2



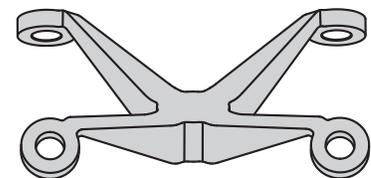
PMH2V90



PMH1L



PMH4

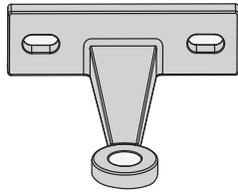


PMH490

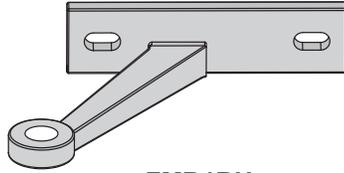
NOT TO SCALE

CRL REGULAR DUTY SPIDERS

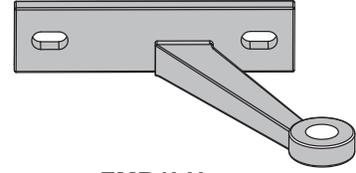
FIN /WALL MOUNT APPLICATION



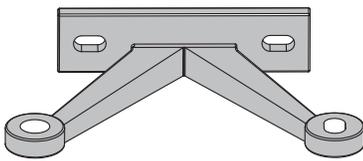
FMR1



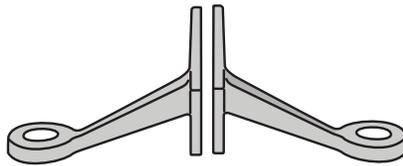
FMR1RH



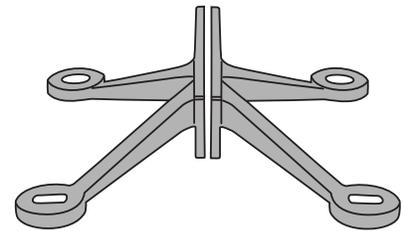
FMR1LH



FMR2V

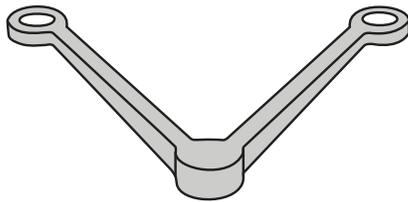


FMR2

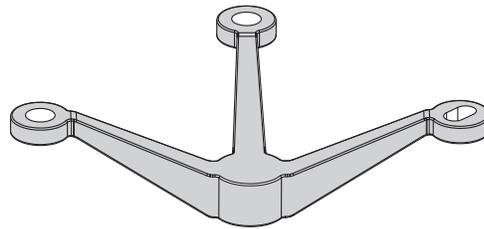


FMR4

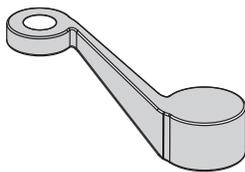
POST MOUNT APPLICATION



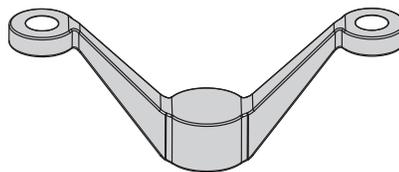
PMR2V



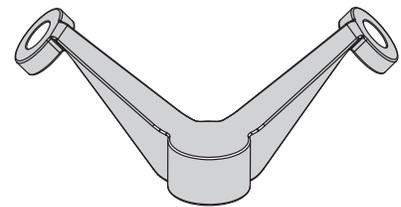
PMR3



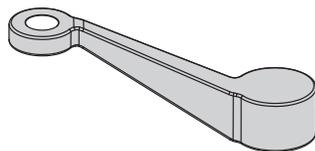
PMR1



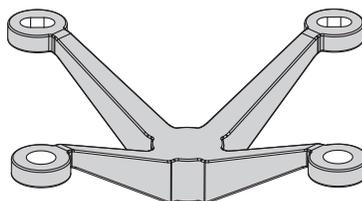
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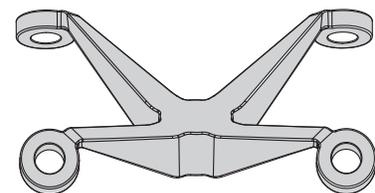
PMR2V90



PMR1L



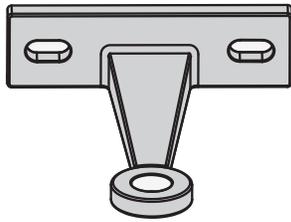
PMR4



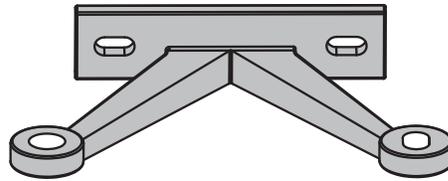
PMR490 NOT TO SCALE

CRL MINI DUTY SPIDERS

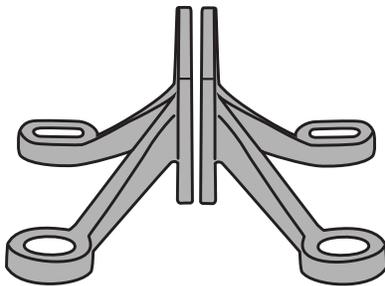
FIN /WALL MOUNT APPLICATION



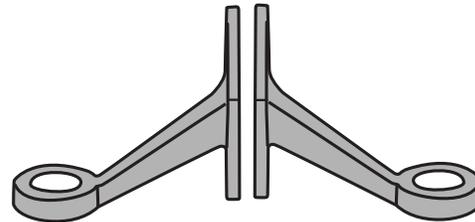
GRF1



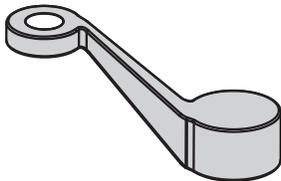
GRF2V



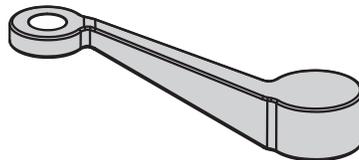
GRF4



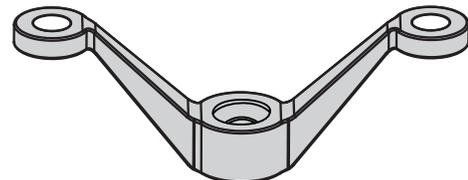
GRF2



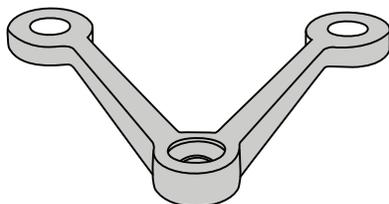
GRP1



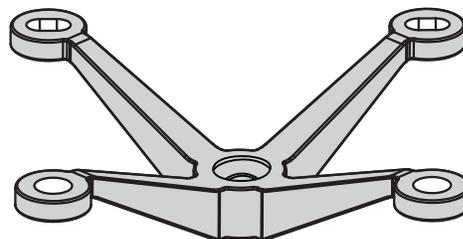
GRP1LBS



GRP2BS



GRP2V



GRP4

NOT TO SCALE

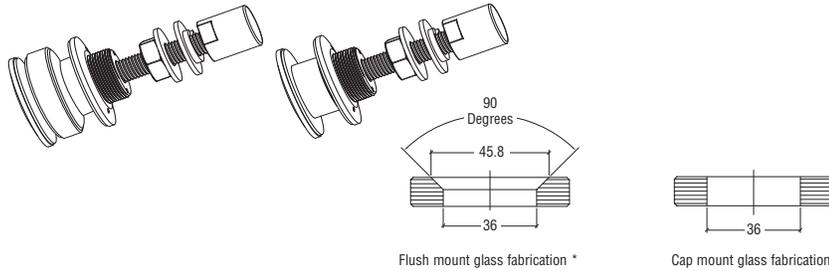
CRL SPIDER FITTING ATTACHMENTS FOR HEAVY-DUTY SPIDER FITTINGS

The Head Attachment (Glass Fittings) allow for secure attachment of the tempered glass to the Spider and to minimize the deflection of the glass panels. This task is achieved with the help of gaskets that are included with the attachments (Glass Fittings) which are a must to act as a flexible interface between the glass and metal. We have glass attachment fittings in fixed or swivel head configurations in both flush mount and cap mount styles.

CRL EXTERIOR GLASS FITTINGS CRL HS1GF14 INSULATED GLASS FITTINGS



The head of the Swivel Glass Attachment can tilt up to 6 degrees in any direction on its ball and socket joint. This allows for any stress applied to the glass to be more evenly distributed across the entire panel of glass rather than concentrating at the hole. Used in conditions where the glass will be subjected to live loads.

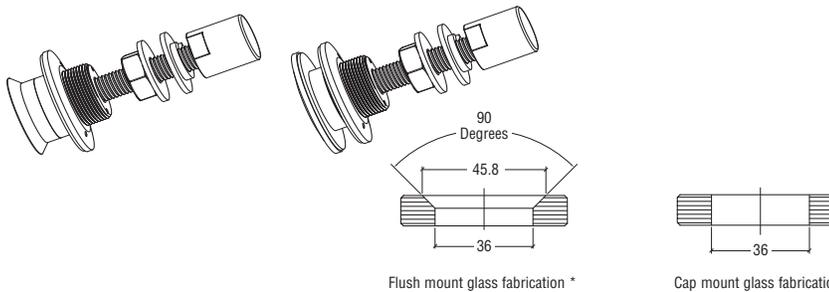


* We suggest when using the flush mount method that you give your glass fabricator a sample Flush Mount Glass Attachment to ensure a proper flush fit. Flush mount application is not recommended when the glass is hanging below the glass fittings.

CRL HRF14 RIGID HEAD COMBINATION GLASS ATTACHMENT



This type of fitting is typically used in interior exterior applications. Our special Rigid Head Combination Glass Attachments can be used for 'flush' mounting a smooth exterior when the glass is fabricated with a countersink hole. Or as a Cap-Mount or surface mount fitting with the adapter washer supplied.

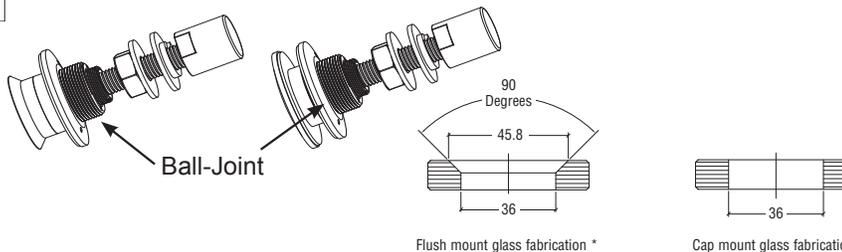


* We suggest when using the flush mount method that you give your glass fabricator a sample Flush Mount Glass Attachment to ensure a proper flush fit. Flush mount application is not recommended when the glass is hanging below the glass fittings.

CRL HSF14 SWIVEL HEAD COMBINATION GLASS ATTACHMENT



The head of the CRL Swivel Glass Attachment can tilt up to 6 degrees in any direction on its ball and socket joint. This allows for any stress applied to the glass to be more evenly distributed across the entire panel of glass rather than concentrating at the hole. These are typically used in conditions where the glass will be subject to live loads: Glass Walls, Overhead Canopies.



* We suggest when using the flush mount method that you give your glass fabricator a sample Flush Mount Glass Attachment to ensure a proper flush fit. Flush mount application is not recommended when the glass is hanging below the glass fittings.

NOT TO SCALE

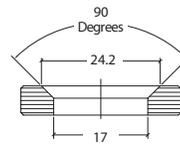
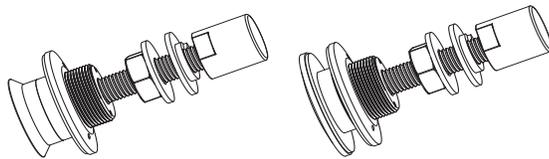
CRL SPIDER FITTING ATTACHMENTS FOR REGULAR DUTY AND MINI SPIDER FITTINGS

The Head Attachment allows for secure attachment of the tempered glass to the Spider and to minimize the deflection of the glass panels. This task is achieved with the help of gaskets that are included with the attachments which are a must to act as a flexible interface between the glass and metal. We have glass attachment fittings in fixed or swivel configurations in both flushed and cap styles.

CRL RSFEX10 EXTERIOR MOUNT SWIVEL HEAD

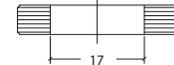


This type of fitting is typically used in interior exterior applications. Our special Rigid Head Combination Glass Attachments can be used for 'flush' mounting a smooth exterior when the glass is fabricated with a countersink hole. This same fitting can be used for 'cap' type of mounting when using a 'cap' type of mounting when using the supplied adapter washer. This requires just a standard hole in the glass. Glass Walls, Overhead Canopies.



Flush mount glass fabrication *

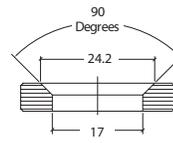
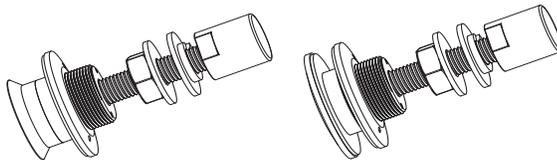
* We suggest when using the flush mount method that you give your glass fabricator a sample Flush Mount Glass Attachment to ensure a proper flush fit.



Cap mount glass fabrication

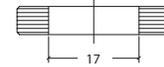


This type of fitting is typically used in interior exterior applications. Our special Rigid Head Combination Glass Attachments can be used for 'flush' mounting a smooth exterior when the glass is fabricated with a countersink hole. This same fitting can be used for 'cap' type of mounting when using a 'cap' type of mounting when using the supplied adapter washer This requires just a standard hole in the glass. Railing-Post, Wall, or Fin.



Flush mount glass fabrication *

* We suggest when using the flush mount method that you give your glass fabricator a sample Flush Mount Glass Attachment to ensure a proper flush fit.

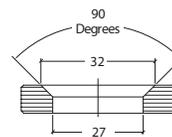
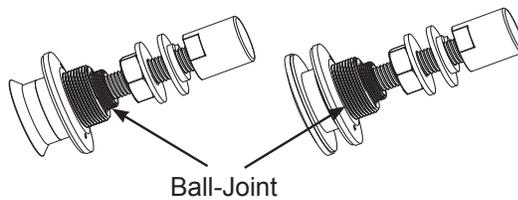


Cap mount glass fabrication



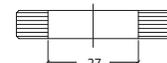
CRL RSF10 SWIVEL HEAD COMBINATION GLASS ATTACHMENT

The head of the CRL Swivel Glass Attachment can tilt up to 6 degrees in any direction on its ball and socket joint. This allows for any stress applied to the glass to be more evenly distributed across the entire panel of glass rather than concentrating at the hole. These are typically used in conditions where the glass will be subject to live loads: Railing-Post, Wall, or Fin.



Flush mount glass fabrication *

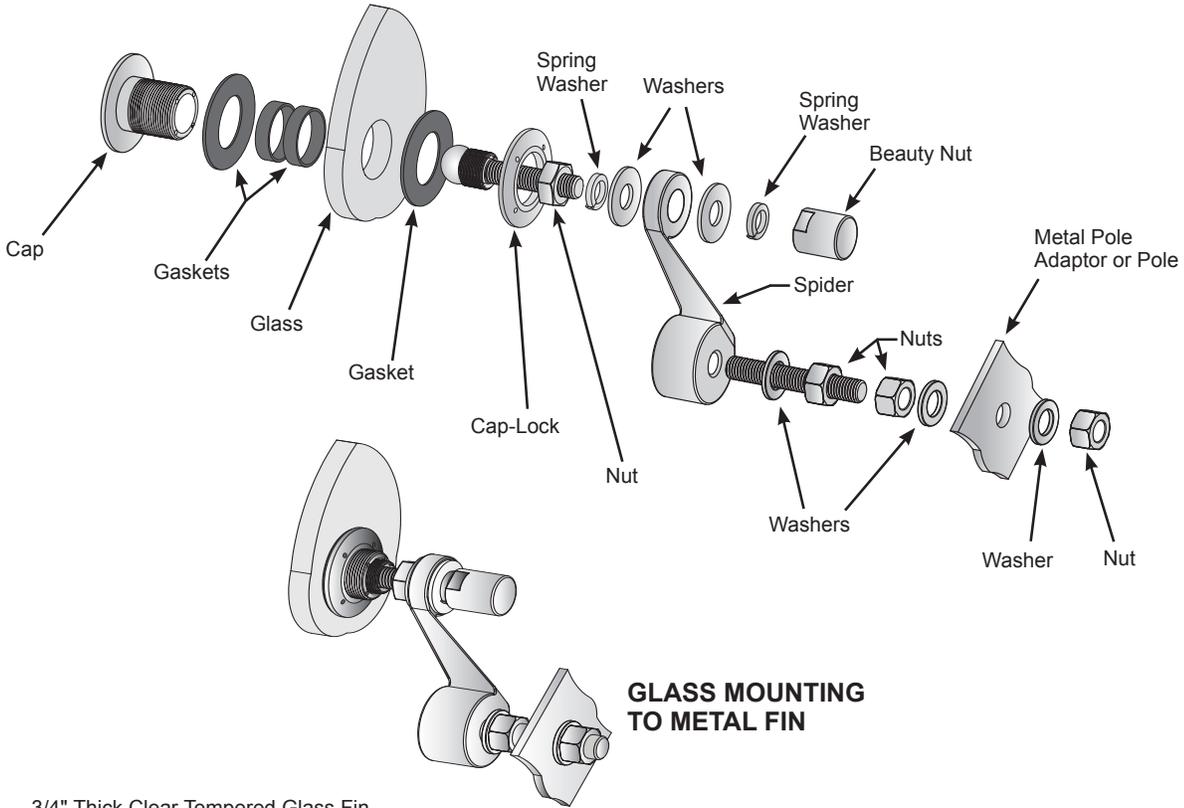
* We suggest when using the flush mount method that you give your glass fabricator a sample Flush Mount Glass Attachment to ensure a proper flush fit.



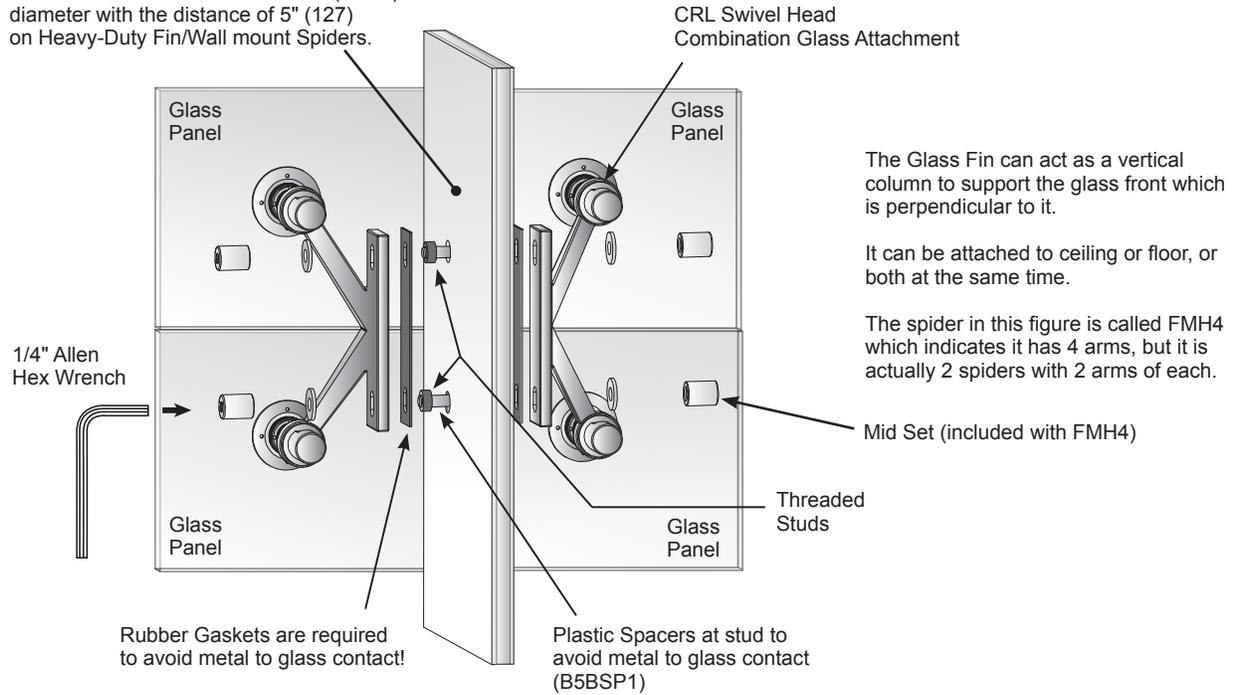
Cap mount glass fabrication

NOT TO SCALE

**RIDGID/INSULATED GLASS/EXTERIOR EXPLODED VIEWS
SWIVEL HEAD CAP MOUNT EXPLODED VIEW**

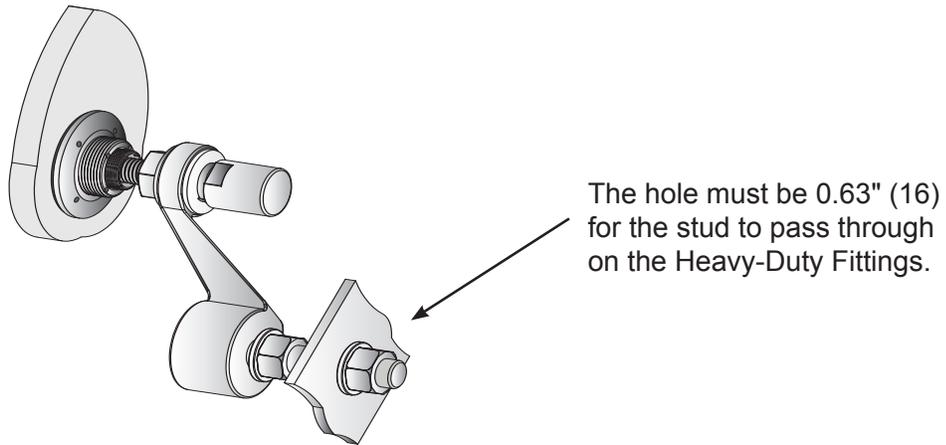


3/4" Thick Clear Tempered Glass Fin.
2 holes on Glass Fin are each 3/4" (19.05)
diameter with the distance of 5" (127)
on Heavy-Duty Fin/Wall mount Spiders.



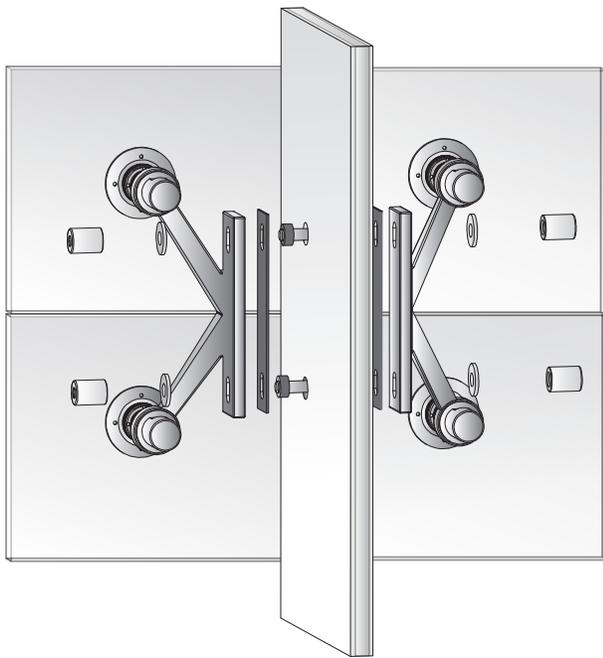
NOT TO SCALE

GLASS MOUNTING TO METAL FABRICATION DIMENSIONS

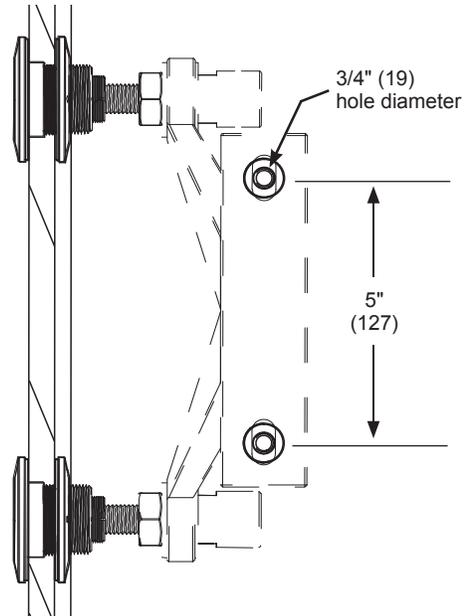


GLASS MOUNTING TO GLASS FABRICATION DIMENSION

FSFHDBS - FIN SPLICE PLATE



PERSPECTIVE EXPLODED VIEW

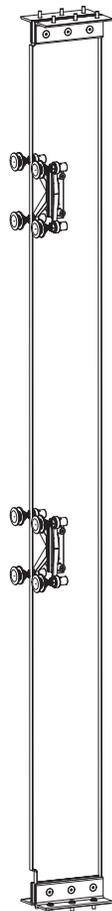
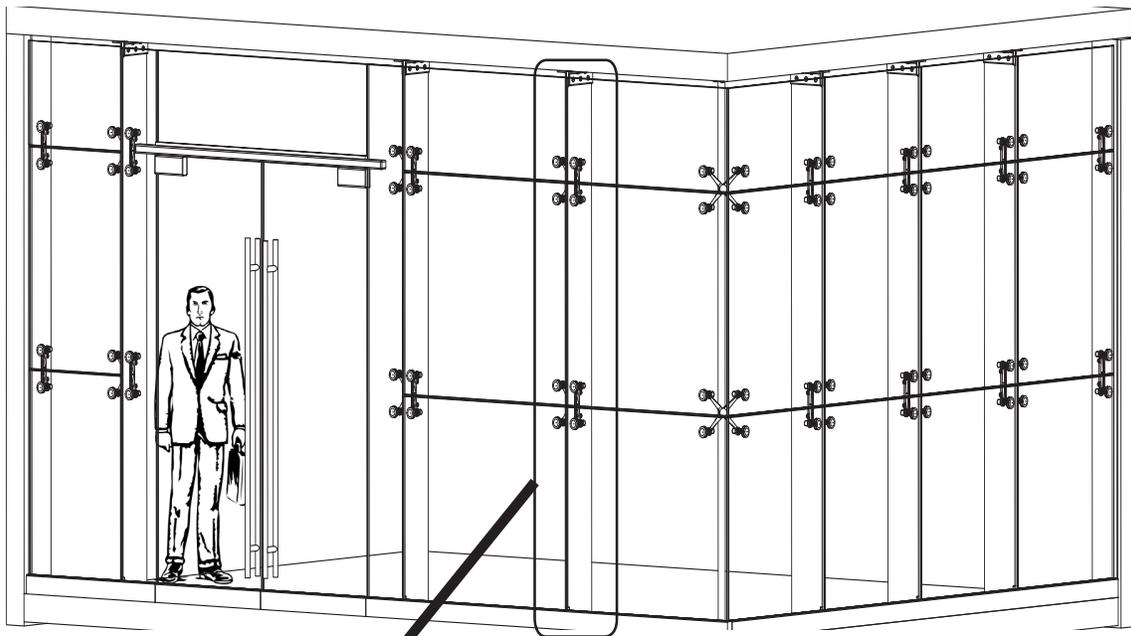


SIDE VIEW OF GLASS FIN TO BE DRILLED

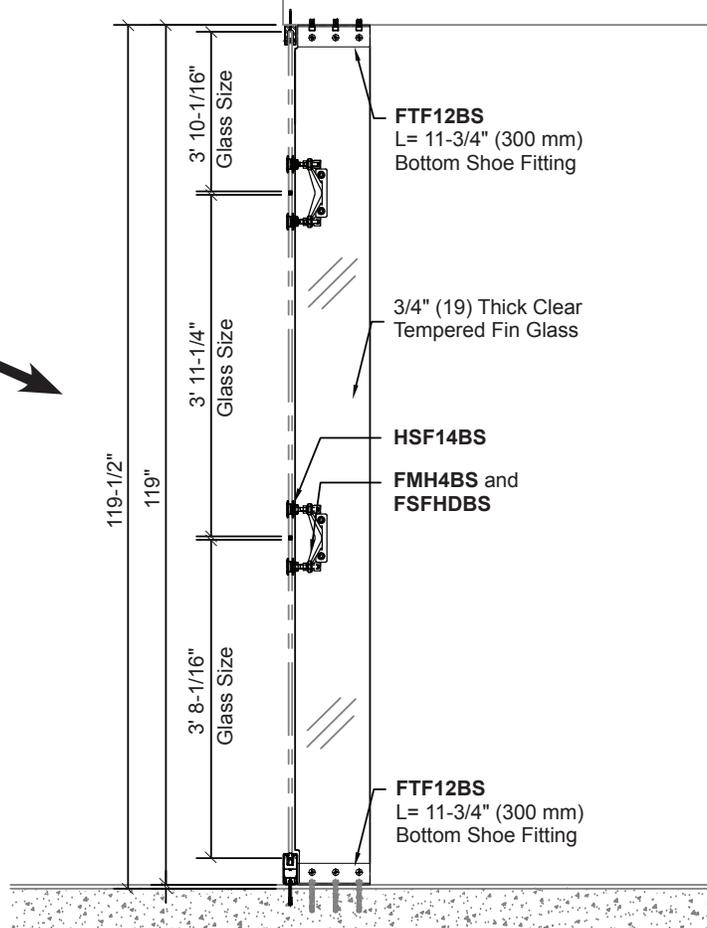
The 3/4" inch glass in the middle of the assembly can be continuous up, down or both directions. It can be attached to floor only, ceiling only, or both ceiling and floor.

NOT TO SCALE

FRAMELESS GLASSWALL EXAMPLE 3D ILLUSTRATION



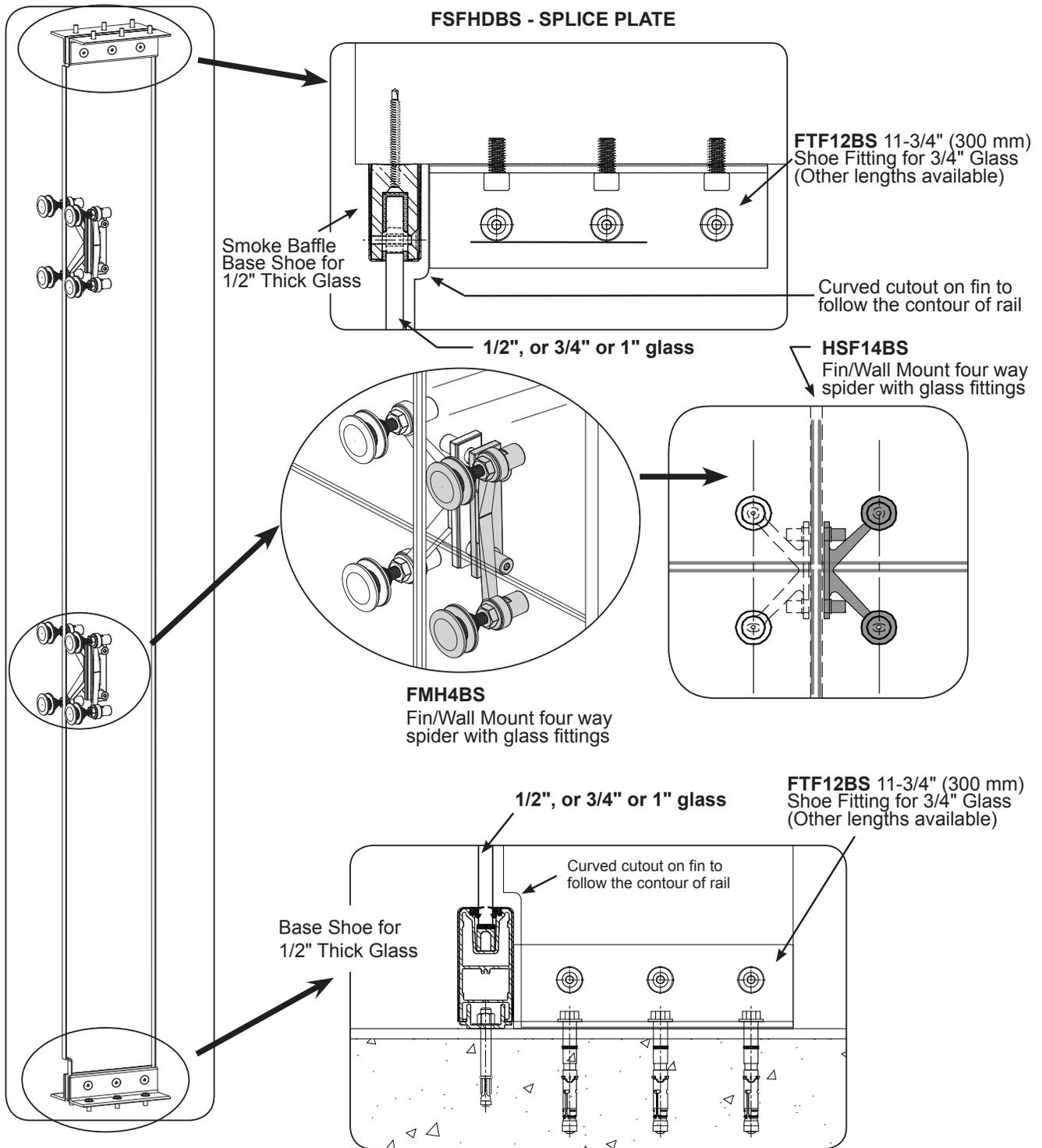
PERSPECTIVE VIEW



SIDE VIEW

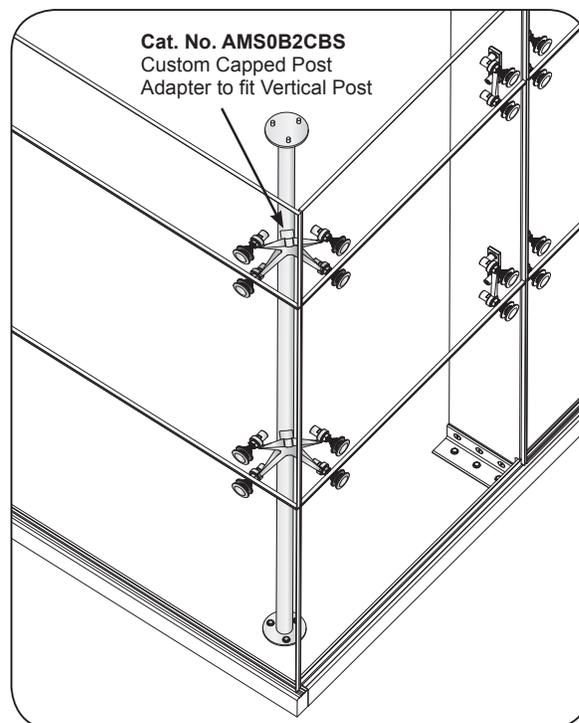
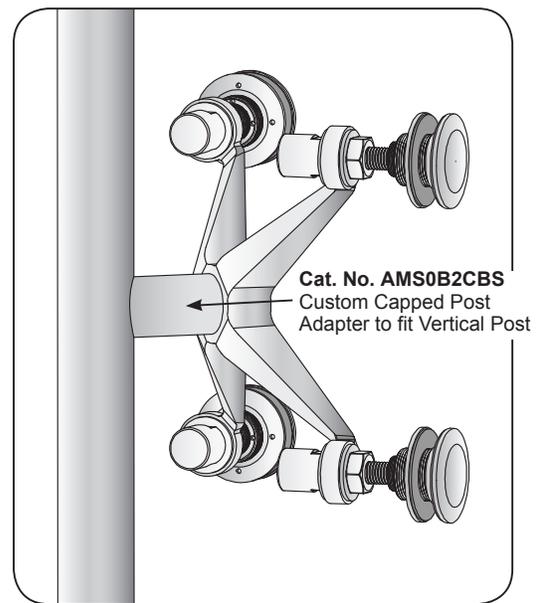
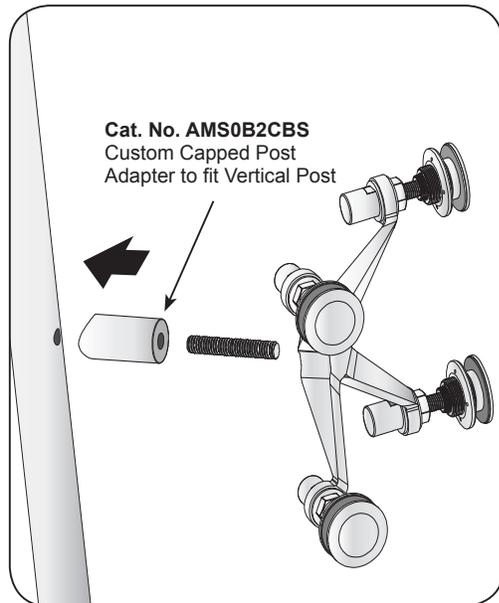
NOT TO SCALE

GLASS FIN ASSEMBLY DETAILS



NOT TO SCALE

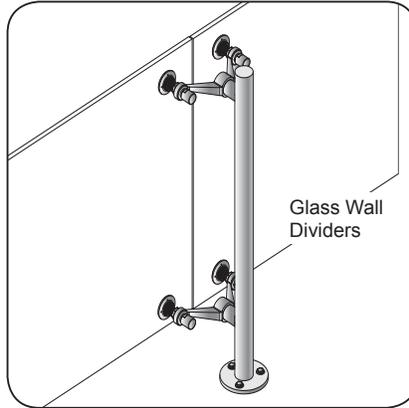
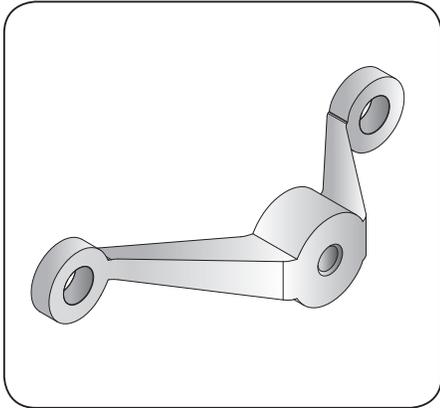
CRL 4-WAY ARM 90 DEGREE HEAVY DUTY POST MOUNT



The Glass panels above are mounted to a CRL 4-Way Arm 90 Degree Heavy Duty Post Mount Fitting called PMH490BS which is meant to hold 90 degree glass panels at the corner of the glass wall. The Spider comes with M16-2.0 x 99.5 mm stainless steel threaded stud. A custom Post Adapter **Cat. No. AMS0B2CBS** can be used to fit the Round Vertical Post.

NOT TO SCALE

TIPS TO UTILIZE OTHER SPIDERS



DOUBLE ARM POST MOUNT FITTING

This Double Arm Fitting is used to attach two in-line glass panels therefore it is great for windscreens.

Comes with a M16-2.0 x 99.5 mm stainless steel threaded stud and three matching nuts with washers. For the Heavy/Regular duty system. The mini fittings are supplied with 3/8"-16 x 2" long countersink bolt.

HEAVY DUTY:

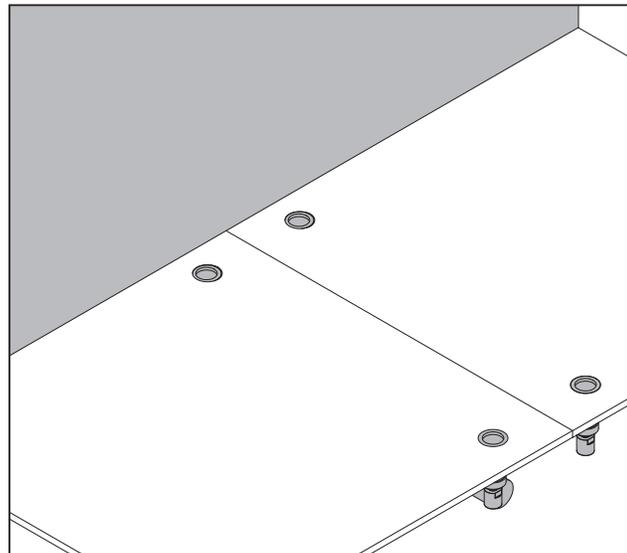
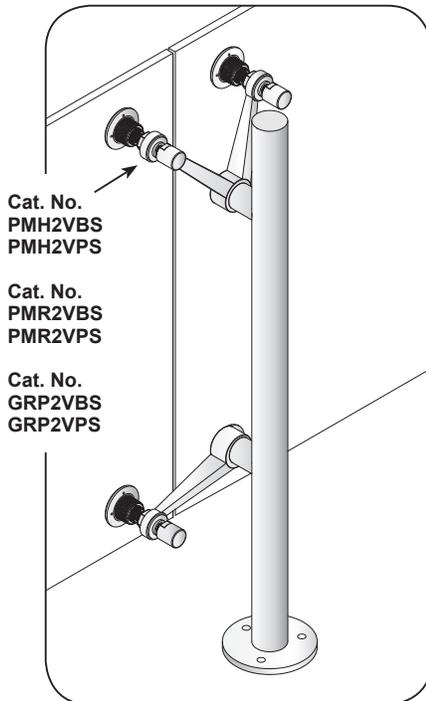
PMH2VBS (Brushed Stainless)
PMH2VPS (Polished Stainless)

REGULAR DUTY:

PMR2VBS (Brushed Stainless)
PMR2VPS (Polished Stainless)

MINI VERSION:

GRP2VBS (Brushed Stainless)
GRP2VPS (Polished Stainless)



NOT TO SCALE